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425.01 Introduction

Air quality impacts can result from various WSDOT activities and projects including transportation-related projects (vehicle emissions) and maintenance, construction, or demolition of facilities (particulates and other emissions). Handling and disposal of asbestos (as a result of construction and maintenance activities) is discussed in [Section 447.05\(7\)\(b\)](#). Air quality permits necessary for asbestos abatements are identified below and discussed further in [Section 540.23](#).

(1) **Summary of Requirements**

Federal, state, and local regulations require that projects that change traffic flow, increase capacity and/or traffic lanes, or add traffic signals within carbon monoxide nonattainment or maintenance areas conduct quantitative analysis for potential impacts to carbon monoxide at the project level. All transportation projects requesting federal funding and all regionally significant projects within carbon monoxide, ozone, or PM₁₀ nonattainment or maintenance areas must be analyzed for regional air emissions of the applicable pollutant for which the area is designated nonattainment or maintenance.

This regional analysis is usually conducted by the local metropolitan planning organization (MPO) or regional transportation planning organization (RTPO) when assembling the regional transportation improvement program (RTIP) (see [Section 320.04](#)). Additional regional analysis would only be needed for very large, regionally significant projects.

Air quality is generally assessed in terms of whether or not concentrations of air pollutants are higher or lower than National Ambient Air Quality Standards (NAAQS) set to protect human health and welfare. All projects that develop Environmental Impact Statements (EISs) must also complete air quality

* Web sites and navigation referenced in this chapter are subject to change. For the most current links, please refer to the online version of the EPM, available through the ESO home page: <http://www.wsdot.wa.gov/environment/>

evaluations for applicable areas of concern which may include discussion of fugitive dust, odors, and asbestos as applicable.

Agencies with jurisdiction over ambient air quality in Washington include the U.S. Environmental Protection Agency (USEPA), the Washington State Department of Ecology (Ecology), and local clean air authorities. These agencies establish regulations governing the concentrations of pollutants in the ambient air, visible emissions, and contaminant emissions from air pollution sources. Although their regulations are similar, each agency has established its own standards. Unless the state or local jurisdiction has adopted more stringent standards, the USEPA standards apply.

Based on monitoring information collected over a period of years, the state (Ecology) and federal (USEPA) agencies designate regions as “attainment” or “nonattainment” areas for particular air pollutants called “criteria” pollutants. Attainment status is therefore a measure of whether or not air quality in an area complies with the relevant NAAQS for six criteria air pollutants: carbon monoxide, sulfur dioxide, particulate matter, ground level ozone, lead, and nitrogen dioxide. Once a nonattainment area achieves compliance with the NAAQS, the area is considered an air quality “maintenance” area until the standard has been maintained for 10 years.

Under federal and state clean air rules there are special requirements in nonattainment and maintenance areas to ensure that proposed transportation projects do not cause or contribute to existing air quality problems. These so-called “conformity rules” require analysis to demonstrate compliance with existing air quality control plans and programs. Guidelines referenced in this chapter will assist in determining air quality analysis requirements.

Fugitive dust is particulate matter that is suspended in the air by wind or human activities. Projects that require earthwork or otherwise have the potential to create fugitive dust are required to utilize best management practices (BMPs) to control dust at WSDOT project sites.

Global climate change and output of greenhouse gases (carbon dioxide) from transportation is currently unregulated, but is an area of interest. See **Chapter 440** Energy for additional information.

Mobile source air toxic emissions are also an emerging area for project level consideration. For additional information or requirements in this area, see the WSDOT Air Quality webpage at:

 <http://www.wsdot.wa.gov/regions/Northwest/rp&s/environmental/aae/default.htm>

(2) **Abbreviations and Acronyms**

Abbreviations and acronyms used in this chapter are listed below. Others are found in the general list in **Appendix A**.

BMP	Best Management Practices
CAA	Clean Air Act (Federal)
CAAA	Clean Air Act Amendments
CAWA	Clean Air Washington Act
CMAQ	Congestion Mitigation and Air Quality Improvement Program
CO	Carbon Monoxide

HC	Hydrocarbons
ISTEA	Intermodal Surface Transportation Efficiency Act
MPO	Metropolitan Planning Organization
MSAT	<u>Mobile Source Air Toxic emission</u>
NAAQS	National Ambient Air Quality Standards
NO _x	Nitrogen Oxides
O ₃	Ozone
PM ₁₀	Respirable or fine particulate matter, smaller than 10 micrometers in diameter
PM _{2.5}	Respirable or fine particulate matter, smaller than 2.5 micrometers in diameter
PPM	Parts per million
PSD	Prevention of Significant Deterioration
SAFETEA-LU	<u>Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users</u>
SIP	State Implementation Plan
SO ₂	Sulfur Dioxide
TCM	Transportation Control Measure
TEA-21	<u>Transportation Equity Act for the 21st Century (PL 105-178), as amended by the TEA-21 Restoration Act of July 22, 1998</u>
TIP	Transportation Improvement Program
TSP	Total Suspended Particulates

(3) **Glossary**

See [Appendix B](#) for a general glossary of terms used in the EPM.

Air Study (or Air Quality Technical Report) – A quantitative evaluation for dispersion of carbon monoxide or qualitative evaluation for PM₁₀ of pollutant emissions designed to address emissions from the operation of the built project. This evaluation should also include discussion of construction phase emissions such as fugitive dust, odors, and asbestos if applicable.

Carbon Monoxide (CO) – A by-product of the burning of fuels in motor vehicle engines. Though this gas has no color or odor, it can be dangerous to human health. Motor vehicles are the main source of carbon monoxide, which is generally a wintertime problem during still, cold conditions.

Conformity – Projects are in conformity when they do not (1) cause or contribute to any new violation of any standards in any area, (2) increase the frequency or severity of any existing violation of any standard in any area, or (3) delay timely attainment of any standard or any required interim emission reductions or other milestones in any area (USEPA's Conformity Rule).

Criteria Pollutants – Carbon monoxide, sulfur dioxide, particulate matter, ground level ozone, lead, and nitrogen dioxide.

Exempt Projects – Listed in federal and state regulations (40 CFR 93.126 and WAC 173-420-110), these are mostly projects that maintain existing transportation facilities or are considered to have a neutral impact on air quality. See also WAC 173-420-120 for projects exempt from regional analysis.

Fugitive Dust – Particulate matter that is suspended in the air by wind or human activities and does not come out of an exhaust stack.

Hot-spot Analysis – An estimate of likely future localized CO and PM₁₀ pollutant concentrations and a comparison of those concentrations to the National Ambient Air Quality Standards. Hot-spot analysis assesses impacts on a scale smaller than the entire nonattainment or maintenance area (for example, congested roadway intersections and highways or transit terminals), and uses an air quality dispersion model to determine the effects of emissions on air quality (40 CFR 93.101). See 40 CFR 93.116 for analysis procedure.

Maintenance Area – An area that previously was considered a “Nonattainment Area” but has achieved compliance with the NAAQS.

Mobile Source Air Toxic emission – Any one of six priority volatile gases or small particulate compounds coming from the tailpipe of a vehicle. The six compounds are (1) formaldehyde, (2) 1,3-butadiene, (3) acrolein, (4) acetaldehyde, (5) benzene, and (6) diesel emissions.

Nonattainment Area – Area that exceeds health-based NAAQS for certain air pollutants designated by the USEPA. Current nonattainment areas are shown in WSDOT’s GIS Workbench (see [Section 425.05 \(1\)](#)).

Ozone (O₃) – A highly reactive form of oxygen that occurs naturally in the earth’s upper atmosphere (stratosphere). Stratospheric ozone is a desirable gas that filters the sun’s ultraviolet (UV) radiation. Ozone at ground level is not emitted directly into the air; instead it forms in the atmosphere as a result of a series of complex sunlight-activated chemical transformations between oxides of nitrogen (NO_x) and hydrocarbons which together are precursors of ozone.

Particulate Matter (PM₁₀ and PM_{2.5}) – Includes both naturally occurring and artificial particles with a diameter of less than 10 microns or 2.5 microns respectively. Sources of particulate matter include sea salt, pollen, smoke from forest fires and wood stoves, road dust, industrial emissions, and agricultural dust. Particles of this size are small enough to be drawn deep into the respiratory system where they can contribute to infection and reduced resistance to disease.

Regionally Significant Project – A transportation project (other than an exempt project) that serves regional transportation needs, such as access to and from the region, major activity centers in the region, major planned developments such as new retail malls, sports complexes, or transportation terminals as well as most terminals themselves. Such projects would normally be included in the modeling of a metropolitan area’s transportation network, including at a minimum all principal arterial highways and all fixed guideway transit facilities that offer an alternative to regional highway travel (40 CFR 93.101).

State Implementation Plan (SIP) – Framework for complying with federal law (40 CFR Part 51) requiring that the state take action to quickly reduce air pollution to healthful levels in a non-attainment area, and to provide enough controls to keep the area clean for 20 years. States have to develop a SIP that explains how it will do its job under the CAA. A SIP is a collection of the regulations a state will use to clean up polluted areas. USEPA must approve the SIP, and if a SIP is not acceptable, USEPA can take over, enforcing the CAA in that state. WSDOT projects must conform to the SIP before the FHWA and the USEPA can approve construction.

Transportation Improvement Program (TIP) – A staged, multiyear intermodal program of transportation projects covering a metropolitan planning area which is consistent with the state and metropolitan transportation plan, and developed pursuant to 23 CFR Part 450. The entire program must conform with the NAAQS in order for any federal funding to be granted for individual projects (except exempt projects).

425.02 Applicable Statutes and Regulations

This section lists the primary statutes and regulations applicable to air quality issues. See [Appendix D](#) for an index of major statutes and regulations referenced in the EPM. Permits and approvals required pursuant to these statutes are listed in [Section 425.06](#).

Federal and state air quality legislation and regulations related to transportation are online at:

 <http://www.wsdot.wa.gov/TA/Operations/Environmental/EnvironLeg.htm>

Click on Air Quality.

(1) Federal

(a) National Environmental Policy Act

The National Environmental Policy Act (NEPA), 42 USC Section 4321, requires that all major actions sponsored, funded, permitted, or approved by federal agencies undergo planning to ensure that environmental considerations such as impacts on air quality are given due weight in decision-making. Federal implementing regulations are at 23 CFR 771 (FHWA) and 40 CFR 1500-1508 (CEQ). For details on NEPA procedures, see **Chapter 410** and **Chapter 411**.

(b) Clean Air Act (CAA)

The Clean Air Act (CAA) of 1970, 42 USC 7401 et seq., was enacted to protect and enhance air quality and to assist state and local governments with air pollution prevention programs. The statute and *A Plain English Guide to the Clean Air Act* are online via USEPA's home page.

 <http://www.epa.gov/>

Click on Programs, then Offices, then Office of Air and Radiation, then Publications. Scroll down to References to see Clean Air Act and Amendments.

Or by direct link:

 http://www.epa.gov/air/oaq_caa.html/

(c) Clean Air Act Amendments (CAAA)

The Clean Air Act Amendments of 1990 are intended to significantly affect transportation decision-making, not only to achieve air quality goals but also to affect broader environmental goals related to land use, travel mode choice, and reduction in vehicle miles traveled. A key section of the CAAA relating to conformity is Title I, Provisions for the Attainment and

Maintenance of National Ambient Air Quality Standards (NAAQS). See USEPA home page referenced above.

(d) Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)

SAFETEA-LU, like the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 and the Transportation Equity Act for the 21st Century (TEA 21), as adopted and amended in 1998, offers tools to help transportation and air quality decision makers carry out the CAAA mandates. For statutes and implementing regulations, see the FHWA home page below.

 <http://www.fhwa.dot.gov/>

Click on Legislation and Regulations, then Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU).

Or by direct link:

 <http://www.fhwa.dot.gov/safetealu/index.htm>

(e) Federal Implementing Regulations

Under the CAAA, the federal Department of Transportation (USDOT) cannot fund, authorize, or approve federal actions to support programs or projects that are not first found to conform to Clean Air Act requirements. With USDOT concurrence, the USEPA has issued regulations pertaining to the criteria and procedures for transportation conformity 40 CFR 93. Exempt projects are listed in 40 CFR 93.126.

FHWA regulations for statewide and regional transportation improvement programs and plans are defined in 23 CFR 450, Planning Assistance and Standards. Federal regulations can be accessed from the following web site:

 <http://www.gpoaccess.gov/cfr/index.html>

Search for "40CFR93" or "23CFR450".

Or:

 <http://www.fhwa.dot.gov/>

Click on Legislation and Regulations, then FHWA Directives and Policy Memorandums, then Federal-Aid Policy Guide, then Title 23 CFR, then 450.

(2) State

(a) State Environmental Policy Act

The State Environmental Policy Act (SEPA), requires that all major actions sponsored, funded, permitted, or approved by state and/or local agencies undergo planning to ensure environmental considerations such as impacts on air quality are given due weight in decision-making. State

implementing regulations are in WAC 197-11 and WAC 468-12 (WSDOT). For details on SEPA procedures, see **Chapter 410** and **Chapter 411**.

(b) Clean Air Washington Act

The Clean Air Washington Act (CAWA) of 1991 (RCW 70.94) requires transportation plans, programs, and projects to be consistent with the SIP to improve air quality in areas where federal air quality standards are not met. The act gives responsibility for determining conformity to the state, local government, or metropolitan planning organization that is developing the transportation plan, program, or project. It also authorizes establishment of a local air pollution control authority for each area of the state.

For details, see Ecology's home page:

 <http://www.ecy.wa.gov/>

For the Clean Air Act and implementing regulations, click on Laws and Rules, then Index of Laws, then Title 70.94. For jurisdiction of local air pollution control agencies, click on Programs, then Air Quality, then Local Clean Air Agencies.

Or by direct link for RCW 70.94:

 <http://www.leg.wa.gov/RCW/index.cfm?fuseaction=chapterdigest&chapter=70.94>

Or by direct link for local air pollution control agencies:

 <http://www.ecy.wa.gov/programs/air/local.html>

(c) State Implementing Regulations

WAC 173-420, Conformity of Transportation Activities to Air Quality Implementation Plans, contains regulations to ensure conformity of transportation activities to SIPs. These regulations were developed jointly by Ecology and WSDOT to meet federal and state statutory requirements. They set forth minimum requirements for evaluating transportation plans, programs, and projects for conformity with the purpose and intent of SIPs for air quality. This chapter of the WAC clarifies state policy and procedures to achieve the NAAQS, foster long range planning for attainment and maintenance of those standards, provide a basis for evaluating conformity determinations, and guide state, regional, and local agencies in making conformity determinations. Exempt projects are listed in WAC 173-420-110. Projects exempt from regional analysis are listed in WAC 173-420-120.

These regulations are online via Ecology's home page:

 <http://www.ecy.wa.gov/>

Click on Programs, then Air Quality, then Regulations.

Or by direct link:

 <http://www.ecy.wa.gov/laws-rules/ecywac.html#air>

(d) State Fugitive Dust Regulations

Standards are set in WAC 173-400-040 for maximum fugitive dust emissions. Ecology established these regulations but gives authority to local air pollution control agencies for enforcement. Many local air agencies have established their own regulations. State Regulations can be found at the following:

 <http://www.leg.wa.gov/WAC/index.cfm?section=173-400-040&fuseaction=section>

425.03 Policy Guidance

The Transportation Commission's Policy Catalog contains a specific policy statement on meeting environmental responsibilities related to air quality: "Minimize, and avoid when practical, air, water, and noise pollution, energy usage; use of hazardous materials; flood impacts; and impacts on wetlands and heritage resources from transportation activities."

A specific objective is to reduce vehicle exhaust emissions statewide as a means of attaining federal air quality standards through a balanced approach, which provides and promotes alternatives to the single occupant vehicle; promotes the use of cleaner fuels; promotes optimum maintenance of individual vehicles; and improves the operating efficiency of the transportation system.


425.04 Interagency Agreements

See [Appendix E](#) for a complete guide to interagency agreements referenced in the EPM.

(1) Fugitive Dust from Construction Projects

The Memorandum of Agreement between WSDOT and the Puget Sound Clean Air Agency (December 1999), establishes a cooperative process to minimize fugitive dust emissions from WSDOT project sites. The agreement is online via the ESO Compliance Branch web site:

 <http://www.wsdot.wa.gov/environment/compliance/agreements.htm>

 Memorandum of Agreement between the Washington State Department of Transportation and the Puget Sound Clean Air Agency Regarding the Control of Fugitive Dust from Construction Projects

425.05 Technical Guidance

(1) General Guidance

Guidelines referenced in this section will assist in determining air quality analysis requirements. An air quality conformity determination is required for all nonexempt projects within or affecting a nonattainment or maintenance area for criteria pollutants as established in the NAAQS. When an Environmental Impact Statement (EIS) is required, an air quality study is required regardless of the project location.

For each WSDOT project involving earthwork, an evaluation of the construction plans and specifications should be completed to identify possible dust-producing activities. The appropriate use of Best Management Practices (BMPs) for fugitive dust control is required for all WSDOT projects (see [Section 425.05\(7\)](#)). For requirements on handling and disposing of asbestos, see [Section 447.05\(7\)\(b\)](#).

(a) Exempt Projects

Exempt projects, listed in federal and state regulations (40 CFR 93.126 and WAC 173-420-110), are mostly projects that maintain existing transportation facilities, or improve mass transit or air quality, and are considered to have a neutral impact on air quality. Some projects, like Park and Ride lots, typically benefit regional air quality, but may contribute to hot spot air emissions problems. Park and Ride lots would not be considered exempt from project level analysis, but are exempt from regional analysis. The federal and state exemption lists also include a category under “hazard elimination program”. Project proponents should be aware that hazard elimination from the point of view of air quality regulation is intended to address situations like removing rock fallen on the roadway or replacing guardrails that tend to be air quality neutral. If a project is funded with hazard elimination program funding, it does not automatically mean that the project is exempt from hot spot analysis. Even if new traffic signal installation or re-striping a roadway from one lane to two lanes is funded under the hazard elimination program, hot spot analysis is still required. See also WAC 173-420-120 for projects exempt from regional analysis.

Projects listed in these regulations are exempt unless the MPO, in consultation with USEPA and other applicable agencies, determines that the project has potentially adverse emissions impacts.

(b) Air Quality Standards

National Ambient Air Quality Standards (NAAQS) can be found via USEPA's home page:

 <http://www.epa.gov/>

Click on Browse EPA topics, then Air, then Air Quality Criteria, then National Ambient Air Quality Standards.

Or by direct link:

 <http://www.epa.gov/ttn/naaqs/>

Washington state and local air quality standards are online via Ecology's home page:

 <http://www.ecy.wa.gov/>

Click on Programs, then Air Quality, then Regulations, or Local Clean Air Agencies.

Or by direct link for state standards:

 <http://www.ecy.wa.gov/laws-rules/ecywac.html#air>

Or by direct link for local standards:

 <http://www.ecy.wa.gov/programs/air/local.html>

(c) WSDOT GIS Workbench

Useful information may be obtained from the WSDOT GIS Workbench, a GIS interface for internal WSDOT users only. It has numerous layers of environmental and natural resource management data. WSDOT works with federal, state, and local agencies to maintain a collection of the best available data for statewide environmental analysis. Available data sets include nonattainment areas for carbon monoxide, ozone, and particulates. For information on how to access the GIS Workbench, see:

 <http://www.wsdot.wa.gov/environment/envinfo/default.htm>

For a list of current data sets, see WSDOT's web site:

 <http://www.wsdot.wa.gov/>

Click on Maps & Data, then GIS Data Distribution Catalog.

Or by direct link:

 <http://www.wsdot.wa.gov/mapsdata/geodatacatalog/default.htm>

(2) Guidance on Conformity

The essence of conformity is very simple: transportation activities should improve or preserve, not worsen, air quality. Transportation conformity is a mechanism for ensuring that transportation activities (plans, programs and projects) are reviewed and evaluated for their impacts on air quality prior to funding approval. **Exhibit 425-1** is a flow chart summarizing the conformity process from planning to project-level analysis. **Exhibit 425-2** shows details of the preliminary process for screening WSDOT projects for air quality conformity.

(a) Conformity and NEPA Documentation

FHWA and WSDOT approval of a final environmental document for a project in a nonattainment or maintenance area also constitutes a determination that the project conforms to the SIP. A statement to the effect that the project conforms to the SIP should always be included in the text of the document. The document should also include a statement to the effect that the project is included in a conforming TIP. The specific dates of the pertinent conformity determinations from the Metropolitan Planning Organization (MPO) and FHWA/FTA should also be included. Often, consultation with the MPO is necessary to determine if a particular project comes from the plan.

All non-exempt projects in a nonattainment or maintenance area must be included in a conforming program. If a project is not in a conforming program, it cannot be found to conform and a final environmental document cannot be approved.

If only some of the project's stages are included in the conforming TIP, the project may still be found to conform (after a hot-spot analysis) provided

the total project is included in the regional emissions analysis done for the program. If the total project is not included in the regional analysis, the project cannot be found to conform and a final environmental document cannot be approved.

The project design and scope should not be significantly different from that in the currently conforming SIP and TIP. Otherwise a new regional analysis would be required. The document should include a statement about this. Project level conformity determination must be completed for all non-exempt projects.

Project level conformity determinations must use the latest planning assumptions. Key assumptions must be included in the draft documents and supporting material used during the interagency and public consultation process. Hot-spot analysis assumptions must be consistent with those in the regional emissions analysis for inputs that are required by both analyses.

(b) *Criteria for Conformity*

In general, under conformity rules, transportation plans, programs, and projects cannot:

- Cause or contribute to any new violation of federal air quality standards.
- Increase the frequency or severity of any existing violation of federal air quality standards.
- Delay timely attainment of federal air quality standards.

Before a final environmental document – including a Finding of No Significant Impact (FONSI) for Categorical Exclusions – for a project in a nonattainment or maintenance area can be approved by the FHWA, the project must be found to conform with the SIP. A project conforms if it is listed in a conforming TIP and also satisfies the following conditions for project level conformity:

- The project must not cause or contribute to any new localized carbon monoxide (CO) or particulate matter violations or increase the frequency or severity of any existing CO or particulate matter violations in the corresponding nonattainment or maintenance area. Concentrations can increase, as long as the increase does not result in an exceedance of the standard.
- For all CO nonattainment and maintenance areas in Washington, the project should improve or preserve CO levels at modeled locations. Concentrations can increase as long as there are no exceedances of the standard.
- There are no project level conditions related to ozone (O₃) in nonattainment and maintenance areas; however, all projects must be in a conforming TIP.

(c) *Three-Year Time Limit*

Under federal regulations (40 CFR 93.104(d)), projects must be implemented within three years of the project-level conformity

determination. If three years pass and significant steps to begin project implementation have not been initiated, a new conformity finding is required.

(3) Discipline Report

Air Quality Discipline Reports (studies) are needed for projects that require Environmental Impact Statements (EISs), and for all other projects located within non-attainment or maintenance areas that are not exempt from air quality conformity. Present law requires air quality studies for all projects within or affecting a non-attainment or maintenance area for criteria pollutants as established in the National Ambient Air Quality Standards (NAAQS). In Washington the pollutants of interest are CO, PM₁₀ and O₃. Emission projections must show that the project will not cause or contribute to a new violation of the NAAQS. When documentation requirements call for an EIS on the project, an air quality study is required regardless of the project's location. Abbreviated technical memorandums are acceptable for updating three-year-old past discipline reports with new conformity findings. Such technical memos need to reference that it is updating a previous study, and include the project title, location, and a brief discussion of what the project is intended to do.

(a) Checklist

Air impact studies are conducted in compliance with federal air quality conformity rules (40 CFR 51 and 40 CFR 93). The Air Quality Discipline Report Checklist ([Exhibit 425-3](#)) serves as the preferred guide for preparing air quality discipline reports. The report should include: an introduction describing the analysis, conformity status, impacts and coordination; description of affected environment, studies performed, and impacts for each alternative; project conformity statement; and construction activity impacts. Details on methodology or lengthy technical discussions should be placed in an appendix to the EA or EIS.

(b) Data Requirements

Current data requirements are described on WSDOT's Air Quality, Acoustics & Energy web site:

 <http://www.wsdot.wa.gov/environment/>

Click on Air/Acoustics/Energy and go to the Air Quality, Acoustic, and Energy web site.

Or by direct link:

 <http://www.wsdot.wa.gov/regions/Northwest/rp&s/environmental/aae/aqdr.htm>

(c) Models

The most up-to-date and accepted models are used to complete project level assessments. Qualitative methods of determining air quality impact may be acceptable for select pollutants.

(d) **Consultant Scope of Work**

Exhibit 425-4 is a sample scope of work that is recommended as a guide in contracting with consultants for air quality studies.

(e) **Conformity**

The *Guidebook for Conformity: Project-Level Air Quality Analysis Assistance for Nonattainment Areas*, published in September 1995, provides guidance to local, regional, and state agencies involved in determining conformity of proposed projects. It focuses on modeling of carbon monoxide (CO). The guidebook was developed jointly by WSDOT, Ecology, Puget Sound Regional Council (PRSC), Spokane Regional Transit Council, and Southwest Washington Regional Transportation Council. It covers definition of the analysis area and level of detail, traffic impact analysis, air quality modeling, transportation control measures, mitigation strategies for nonconforming projects, and project-level analysis case studies.

(4) **FHWA Technical Advisory**

FHWA Technical Advisory T 6640.8A (October 1987) provides guidelines for preparing environmental documents. For air quality, the draft EIS should contain a brief discussion of the transportation-related air quality concerns in the project area and a summary of the project-related carbon monoxide analysis if such analysis is performed. Note that regional air pollution control agencies usually evaluate air quality impacts to ensure that proposed projects are in conformity. For details, see FHWA's home page:

 <http://www.fhwa.dot.gov/>

Click on Legislation and Regulations, then FHWA Directives and Policy Memorandums, then FHWA Technical Advisories, then T6640.8A.

Or by direct link:

 <http://www.fhwa.dot.gov/legregs/directives/techadvs/t664008a.htm>

(5) **Guidelines for NEPA Documentation**

WSDOT provides the following additional guidance for NEPA documents.

(a) **Conformity**

The environmental document should include a statement of the attainment status of the area in which the project is located. If the project is in an area that is in attainment for all pollutants of concern (O₃, CO, and PM₁₀), the environmental document should say that the area is in attainment for transportation-related pollutants (list pollutants, if desired) and say that conformity does not apply.

If the area is nonattainment or maintenance for any pollutants, the document should state which pollutants cause the area to be classified as such. Then it should address conformity, making a statement to the effect that the project is in the SIP and TIP found in accordance with the USEPA final conformity regulations revised on July 1, 2001. List specific dates of the pertinent conformity determinations by the MPO and FHWA/FTA.

The document should point out that the design concept and scope have not changed since the SIP and TIP were found to conform. “Design concept” means the type of facility identified by the project, e.g., freeway, expressway, arterial highway, reserved right-of-way rail transit, mixed traffic rail transit, or exclusive busway. “Design scope” means design aspects which will affect the proposed facility’s impact on regional emissions, usually as they relate to vehicle or person carrying capacity and control, e.g., number of lanes or tracks to be constructed or added, length of project, signalization, access control (including approximate number and location of interchanges), or preferential treatment of high-occupancy vehicles.

If TCMs are identified in the SIP for the nonattainment area, the document should discuss the project's potential to affect implementation of the TCMs.

The document should include evidence of coordination/consultation with USEPA and/or state and local air quality agencies.

(b) Air Quality Analysis

The document should include and discuss the results of quantitative local CO analysis (hot-spot) or explain why a quantitative analysis was not needed to assess potential air quality impacts. The following steps should be taken:

- Determine if the project will not require quantitative (hot-spot) analysis or is exempt from a conformity determination (no regional or hot-spot analysis required). Determine if the project is one of the types that do not impact regional emissions (no regional analysis required; does not have to come from conforming SIP and TIP). If the project will not require quantitative analysis, say so and make reference to 40 CFR 93.123. If the project is exempt from either regional or local analysis, say so and make reference to 40 CFR 93.126 or 40 CFR 93.127, as applicable.
- For PM₁₀ and CO nonattainment and maintenance areas after USEPA approves the SIP revisions, provide documentation that the project does not cause or contribute to any new localized CO or PM₁₀ violations or increase the frequency or severity of any existing violations in the respective area.
- For ozone nonattainment and maintenance areas the analyst needs to identify that the project is part of the MTP and TIP to assure that regional ozone conformity has been met. After June 14, 2005 the one-hour ozone standard will be revoked and no ozone discussion will be required.

The document should discuss key assumptions made in performing the analysis. The assumptions must satisfy the following requirements:

- Planning assumptions must be derived from the estimates of current and future population, employment, travel, and congestion most recently developed or approved by the MPO.

- Hot-spot analysis assumptions must be consistent with those in the regional emissions analysis for inputs that are required by both analyses.

(6) Online Technical Guidance References

(a) USEPA Guidance on Carbon Monoxide Modeling

The *Guideline for Modeling Carbon Monoxide from Roadway Intersections* (USEPA-454/R-92-006), published in November 1992 by USEPA's Office of Air Quality Planning and Standards, includes guidance on receptor siting, intersection selection procedure, intersection analysis, and examples of a SIP attainment demonstration and project-level analysis.

The document and many others are online via USEPA's home page:

 <http://www.epa.gov/>

Click on Information Sources, then Publications, then Publications on the EPA site, then Air Quality Planning and Standards and sort by publication number and look for publication number 454R92006.

Or by direct link:

 <http://www.epa.gov/cgi-bin/claritgw?op-Display&document=clserv:OAR:0991;&rank=4&template=epa>

(b) FHWA Background Information

FHWA's online *Environmental Guidebook* contains numerous documents in PDF format on conformity, air quality analysis, and mitigation published since 1989. The Guidebook and other background information and data sources can be found on FHWA's web site:

 <http://www.fhwa.dot.gov/>

Click on FHWA Programs, then Environment, then Environmental Guidebook, then Natural Environment, then Air Quality.

Or by direct link:

 <http://environment.fhwa.dot.gov/guidebook/chapters/V1ch1.htm>

Topics include:

- Conformity.
- Microscale and Regional Modeling and Emission Models.
- Congestion Mitigation and Air Quality Improvement Program (CMAQ).
- FHWA Sanction Exemption Criteria (determines which projects can go forward and which grants may be awarded if USEPA imposes highway sanctions under Section 179(b) or Section 110(m) of the Clean Air Act).
- Transportation Control Measures (TCMs) for purposes of conforming to state implementation plans and achieving the NAAQS.

- Public information initiative to support state and local government efforts to meet their congestion and air quality goals under ISTEA and CAA.

(c) Other Useful Web Sites

Ecology's home page includes access to information on SEPA, laws and standards, conditions and trends, and permit assistance. Click on "air quality" for air quality regulations, local air pollution control agencies, approved SIPs, and more.

USEPA's home page gives access to a variety of other air quality information, including federal regulations and standards, modeling, and technology transfer.

 <http://www.epa.gov/>

Click on Browse EPA Topics, then Air, then Office of Air and Radiation.

Or by direct link:

 <http://www.epa.gov/oar/>

(7) Best Management Practices for Control of Fugitive Dust

Fugitive dust emissions can be prevented and reduced in four basic ways:

- Limiting the creation or presence of dust-sized particles
- Reducing wind speed at ground level
- Binding dust particles together
- Capturing and removing fugitive dust from its sources

Following is a list of BMPs for control of fugitive dust compiled by the Associated General Contractors (AGC) of Washington in the publication, *Guide to Handling Fugitive Dust From Construction Projects*. Copies of this publication can be requested from WSDOT and Puget Sound Clean Air Agency.

Note that the following control measures are not mutually exclusive. Most situations require the use of two or more methods for any particular situation, and several methods will be employed to handle the variety of situations that make up a particular job. BMPs have been developed for the following:

- Covering – Fabric/Other for Erosion Control
- Dust Suppressants – Chemical
- Erosion Controls
- Filter Fabric around catch basin
- Flocculating Agent
- Minimize Disrupted Surface Area
- Paving
- Quarry Spills
- Schedule Work: Reschedule work around especially windy days
- Speed Reduction

- Street Sweepers
- Vehicle Spillage Reduction
- Water Spray
- Wheel Wash
- Vehicle Scrape

Although water can be one of the main control agents for dust, it is important to plan ahead for water shortages and consider the use of other measures.

For more information on chemical dust suppressants see [Exhibit 425-5](#) and [Exhibit 425-6](#), and the following links:

- Potential Environmental Impacts of Dust Suppressants: Avoiding Another Times Beach, located on USEPA's web site at:

 <http://www.epa.gov/nerlesd1/cmb/pdf/dust.pdf>

- Techniques for Dust Prevention and Suppression, located on Ecology's web site at:

 <http://www.ecy.wa.gov/pubs/96433.pdf>

425.06 Permits and Approvals

Regional clean air agencies may require air quality permits for the following WSDOT activities:

- Land clearing burns
- Demolition of structures containing asbestos
- Asphalt batching, concrete mixing, rock crushing or other temporary sources (new source construction)

For details on permit requirements, see [Section 540.23](#).

425.07 Non-Road Project Requirements

Air studies for rail projects require a different type of analysis to determine conformity. For information, contact WSDOT's Air Quality, Acoustics & Energy section. Requirements for addressing air quality impacts related to roads and vehicular use to get to ferry and aviation facilities is assumed to be the same as for road projects. For projects involving additional ferry routes or air flight, federal general conformity rules apply. Contact the WSDOT's Air Quality, Acoustics & Energy section for more information.

425.08 Exhibits

[Exhibit 425-1](#) – Conformity Process from Planning to Project-Level Analysis.

[Exhibit 425-2](#) – Air Quality Conformity Guidance – Project-Level Preliminary Screening.

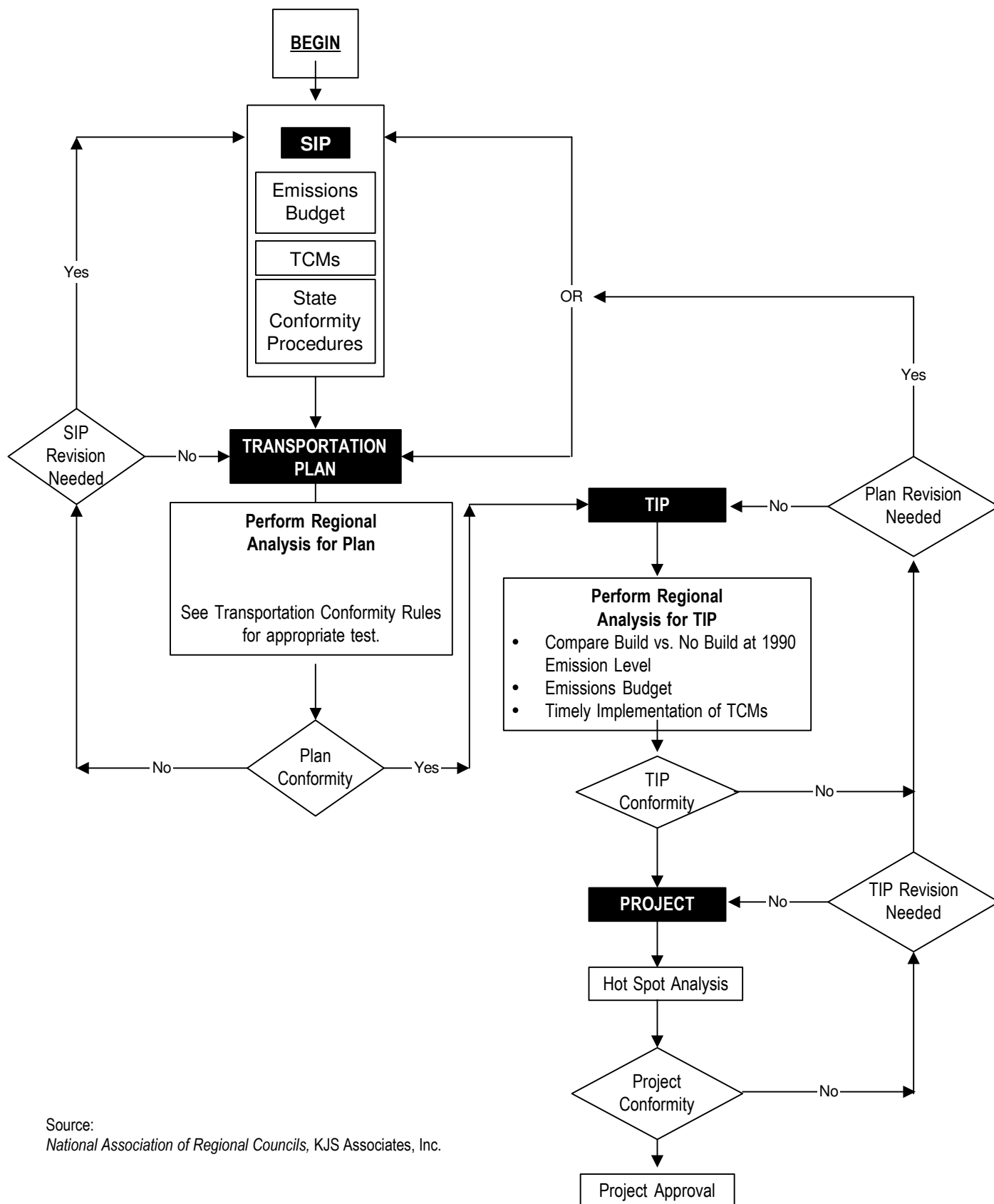
[Exhibit 425-3](#) – Air Quality Discipline Report Checklist.

[Exhibit 425-4](#) – Sample Consultant Scope of Work for Air Quality Studies.

[Exhibit 425-5](#) – Chemical Dust Suppressant Contact Information.

***Exhibit 425-6 – Fugitive Dust Control During the 2001 Summer Construction Season
(Fact Sheet/Drought).***

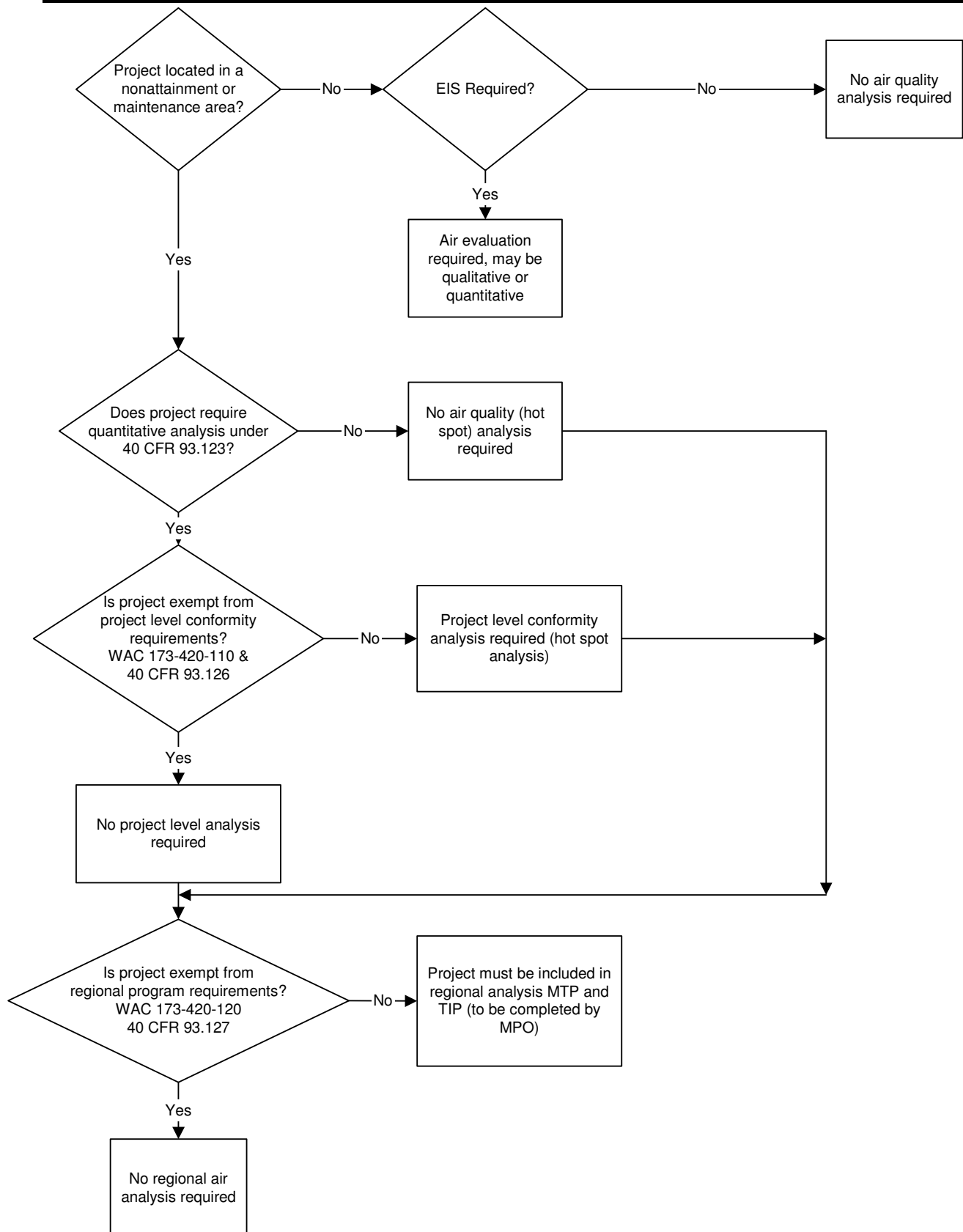
Conformity Process from Planning to Project-Level Analysis



Source:
National Association of Regional Councils, KJS Associates, Inc.

Air Quality Conformity Guidance

Project-Level Preliminary Screening



Discipline Report Checklist Air Quality

Project Name: _____

Contact Name: _____

Date Received: _____ **Reviewer:** _____

(SAT = Satisfactory; INC = Incomplete; MIS = Missing; N/A = Not Applicable)

Answers are required for questions that have no N/A box.

Air impact studies are conducted in compliance with the Federal and State Air Quality Conformity Rules (40 CFR part 93 and WAC 173-420). The Air Quality Discipline Report is intended to identify information used during the development of an air quality discipline report. This checklist may be modified in consultation with the WSDOT Air Quality section.

I. Introduction

Summarize the analysis done and conclusions reached, with enough detail so the report can be included in the Air Quality Section of the environmental document. If this information is available in another section of a larger document, please provide those sections to the reviewer to complete the information.

SAT	INC	MIS	N/A	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A. Summary of project (including project location/mile post).
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		B. The objectives of the project.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	C. Narrative of analysis - EPA approved models used.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	D. Project conformity status.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		E. Comparison and discussion of the impact status of all alternatives (includes No Build).
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	F. Coordination with federal, state, and local agencies done.

II. Affected Environment

SAT	INC	MIS	N/A	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A. CADD and/or channelization plan.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	B. Ambient air quality standards.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	C. Existing air quality conditions.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	D. Existing/proposed right-of-way/areas accessible to the public.*
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	E. Compliance status with NAAQS and existing project area attainment status.

SAT	INC	MIS	N/A
-----	-----	-----	-----

- | | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|----|---------------------------------------------------------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | F. | Current ambient health effects on people (plants and animals when appropriate). |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | G. | Project area meteorology. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | H. | Health affects of pollutants. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | I. | Any major terrain features. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | J. | Project description. |

* These items are not required in the discipline report, but provide data needed to conduct modeling.
Modeling outputs must be shown in the discipline report.

III. Studies and Coordination

SAT	INC	MIS	N/A
-----	-----	-----	-----

- | | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | A. | National Ambient Air Quality Standards (NAAQS) for nonattainment or maintenance areas affected by project. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | B. | Project's relation to regional transportation plan and regional TIP. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | C. | Project's relation to State Implementation Plan (SIP) requirements, including Transportation Control Measures (TCMs) if applicable. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | D. | Method of air quality analysis. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | E. | Summary of conformity guidance. When conformity finding required, next three items must be included. |
| | | | | <input type="checkbox"/> 1. | City specific traffic, emissions, and concentration models used (mesoscale and microscale analysis). |
| | | | | <input type="checkbox"/> 2. | Assumptions used. |
| | | | | <input type="checkbox"/> 3. | Map showing modeled receptor locations. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | F. | Nonattainment and maintenance areas: summary of reference to regional analysis of region transportation plan and TIP. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | G. | Receptor sites placed per EPA guidance. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | H. | Induced traffic growth (method for predicting traffic volumes growth factor, inclusion of other regional projects in projections, traffic report citation). |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | I. | Indirect air quality effects. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | J. | Modeling performed for existing and project related or project affected Level of Service (LOS) D, E and F intersections. |

SAT INC MIS N/A

☐ ☐ ☐ ☐ K. Results of coordination with appropriate air quality agencies.

IV. Project Data & Assumptions

This information is needed for modeling and may be found in the modeling outputs included or as an attachment / appendix.

SAT INC MIS N/A

☐ ☐ ☐ ☐ A. Number and width of lanes.*

☐ ☐ ☐ ☐ B. Peak hour traffic volumes.*

☐ ☐ ☐ ☐ C. Signal timing and traveled speeds.*

☐ ☐ ☐ ☐ D. Level of service for intersections.*

☐ ☐ ☐ ☐ E. Homes, buildings shown on plan sheets, public access points.*

☐ ☐ ☐ ☐ F. Type of roadway (elevated, depressed, at grade).*

* These items are not required in the discipline report, but provide data needed to conduct modeling.
Modeling outputs must be shown in the discipline report.

V. Impacts (for each alternative and no build)

SAT INC MIS N/A

☐ ☐ ☐ ☐ A. Qualitative and quantitative analysis of pollutants, per Conformity Guidance.

☐ ☐ ☐ ☐ B. Findings of regional TIP quantitative analysis of hydrocarbons (HCs) and CO with project included.

☐ ☐ ☐ ☐ C. Air quality impacts for year of opening.

☐ ☐ ☐ ☐ D. Air quality impacts for horizon year of the regional long-range transportation plan known as the metropolitan transportation plan (MTP).

DESIGN MODIFICATION COMMITMENTS (if applicable)

SAT INC MIS N/A

☐ ☐ ☐ ☐ A. Modification commitments during highway operation.

☐ ☐ ☐ ☐ B. Design modifications or measures considered or available but not included with reasons why.

VI. Project Conformity Statement

SAT	INC	MIS	N/A	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A. Project's inclusion in conforming transportation plan and TIP / regional conformity per 40 CFR 93.110 –117.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	B. Emissions relationship between build and no build alternatives.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	C. Project's contribution to reduction of NAAQS violations (if any).
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	D. Applicability of CO, ozone, and PM ₁₀ conformity.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	E. Hot spot conformity statement.

VII. Construction Activity Impacts

SAT	INC	MIS	N/A	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A. Impacts.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	B. Dust and particulates.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	C. Slash disposal.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	D. Burning.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	E. Odors.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	F. Emissions from construction equipment.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	G. Emissions from asphalt plants, gravel plants, and other temporary sources. Discuss permit requirements.

MITIGATION

SAT	INC	MIS	N/A	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A. Mitigation measures and commitments during construction.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	B. Mitigation measures considered or available but not included.

VIII. Figures, Maps, and Tables

SAT	INC	MIS	N/A	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A. Vicinity map.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	B. Ambient air quality standards.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	C. Designated nonattainment or maintenance areas for criteria pollutants.

SAT	INC	MIS	N/A		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	D.	Receptor group locations.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	E.	Ozone trends (recommended but not mandatory, after June 14, 2005 this is N/A because the boundary will be revoked).
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	F.	Carbon Monoxide trends (recommended but not mandatory).
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	G.	List of Receptors with Existing, Build, and No Build CO levels.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	H.	Receptor List of Existing, Build, and No Build CO exceedances (with values).

IX. Summary

Summarize the analysis done and conclusions reached. The summary should include enough detail so that it can be included in the EIS with only minor modification. The summary should include:

SAT	INC	MIS	N/A		
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		A.	Summary conformity statements (regional and local as appropriate).
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		B.	Impacts of all alternatives including the no-build alternative.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		C.	Required mitigation.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		D.	Comparison of alternatives based on impacts and effectiveness of design alternatives and construction phase mitigation.

General Comments: _____

Sample Consultant Scope of Work for Air Quality Studies

The air quality impact analysis will follow the WSDOT Environmental Procedures Manual (EPM) guidelines, except when directed otherwise by this contract.

Air quality impacts will be assessed, quantified, and described for:

1. The Existing Year
2. The Year of Opening – No Build
3. The Year of Opening – Build
4. The Horizon Year of the long-range Metropolitan Transportation Plan (MTP) – No Build
5. The Horizon Year of the long-range Metropolitan Transportation Plan (MTP) – Build

All build alternatives will be evaluated.

The existing air quality and pollution sources will be described.

Air quality impacts from construction activities and vehicles operating on the roadway will be evaluated qualitatively. Temporary air quality impacts during construction will be examined, and mitigation measures to control fugitive dust will be discussed referencing the Memorandum of Agreement with the Puget Sound Clean Air Agency regarding fugitive dust in Short Term Mitigation measures. This agreement requires evaluation and implementation of best management practices.

The long-term impacts from changes in vehicular traffic operating on the roadway will be discussed. Monitoring and modeling of air pollutants other than carbon monoxide (CO) is not proposed.

Studies and Coordination

The air quality analysis will meet the requirements of WAC 173-240 and follow USEPA guidelines. The microscale analysis will be performed to determine carbon monoxide (CO) concentrations using the USEPA CAL3QHC Version 2 or other USEPA approved computer models (the mesoscale analysis is done on transportation projects by the Puget Sound Regional Council as part of the TIP analysis). Vehicular emissions will be computed by using the USEPA's latest emission factor algorithm – MOBILE6 or later version as required by the USEPA. The intersections selected for modeling and the corresponding receptor siting will be based on level of serve (LOS) in accordance with the most recent reversion of the federal conformity rule 40 CFR 93. Potential air quality impacts would be evaluated for all LOS D, E, and F intersections that would be affected by the proposed project. Some screening of the number of intersections may be accommodated on a case-by-case basis in consultation with the WSDOT Air Quality section. Maximum one-hour and eight-hour CO concentrations will be estimated at receptor sites for each alternative (including the no-build), for peak traffic periods, for existing, year of opening, and the Design year. The results will be compared to the State and National Ambient Air Quality Standards (NAAQS).

The CONSULTANT will include the following traffic (as collected by the STATE) and modeling information for all study years, as defined above, for the Air Quality Discipline Report:

- AM and PM peak hour traffic volumes and LOS for all new, modified, and impacted intersections for all alternatives at intersections with signals,
- Description of intersections selected,
- Description of figure showing receptor locations,
- Identification of models used,
- 1-hour and 8-hour maximum pollutant concentrations at each intersection for each modeling scenario.

The conformity analysis will conclude with the project conformity statement. Include the project's inclusion in pertinent conforming transportation plan and conforming transportation improvements program, and relation to transportation control measures. Note the emissions relationship between build and no-build alternatives. Indicate whether the project contributes to the reduction of frequency and severity of violations of NAAQS (if any).

The air quality evaluation shall also include discussion of odors, construction emissions (e.g., fugitive dust), and asbestos if applicable.

Chemical Dust Suppressant Contact Information

Type	Brand Name	Manufacturer	Contact Information
Freshwater			
Seawater			
Calcium Chloride	Calcium Chloride Flakes	General Chemical	800-668-0433
	Calcium Chloride Liquid	General Chemical	800-668-0433
	Dowflake	Dow Chemical	800-447-4369
	Liquidow	Dow Chemical	800-447-4369
Magnesium Chloride	Chlor-Tex	Soil-Tech	702-873-2023
	DustGard	IMC Salt	800-323-1641
	Dust-Off	Cargill Salt Division	800-553-7879
Sodium Chloride	IMC Salt	IMC Salt	800-323-1641
	Morton Salt	Morton International	312-807-2000
Lignin Derivatives	DC 22	Dallas Roadway Products, Inc.	800-317-1968
	Dustac	Georgia Pacific West, Inc.	360-733-4410
	Dustac-100	Georgia Pacific West, Inc.	360-733-4410
	RB Ultra Plus	Roadbind America, Inc.	888-488-4273
Tree Resin Emulsions	Dust Control E	Pacific Chemicals, Inc. / Lyman Dust Control	800-952-6457
	Dustrol EX		
	Road Oyl	Soil Stabilization Products Co. Inc.	800-523-9992
Electrochemical	Bio Cat 300-1	Soil Stabilization Products Co. Inc.	800-523-9992
	EMCSquared	Soil Stabilization Products Co. Inc.	800-523-9992
	SA-44 System	Dallas Roadway Products, Inc.	800-317-1968
	TerraBond Clay Stabilizer	Fluid Sciences, LLC	888-356-7847
Synthetic Polymer Emulsions	Aerospray 70A	Cytec Industries	800-835-9844
	ECO-110	Chem-crete	972-234-8565
	Soil Master WR	Environmental Soil Systems, Inc.	800-368-4115
	Soil Seal	Soil Stabilization Products Co. Inc.	800-523-9992
	Soil Sement	Midwestern Industrial Supply, Inc.	800-321-0699
	Top Shield	Base Seal International, Inc.	800-729-6985
Bitumens, Tars, and Resins	Asphotac	Actin	219-397-5020
	Coherex	Witco Corp.	800-494-8287
	PennzSuppress-D	Pennzoil-Quaker State Co.	713-546-4000
	Road Pro	Midwestern Industrial Supply, Inc.	800-321-0699
Geotextiles	Trevira Spunbound	Hoechst Celanese Corporation	

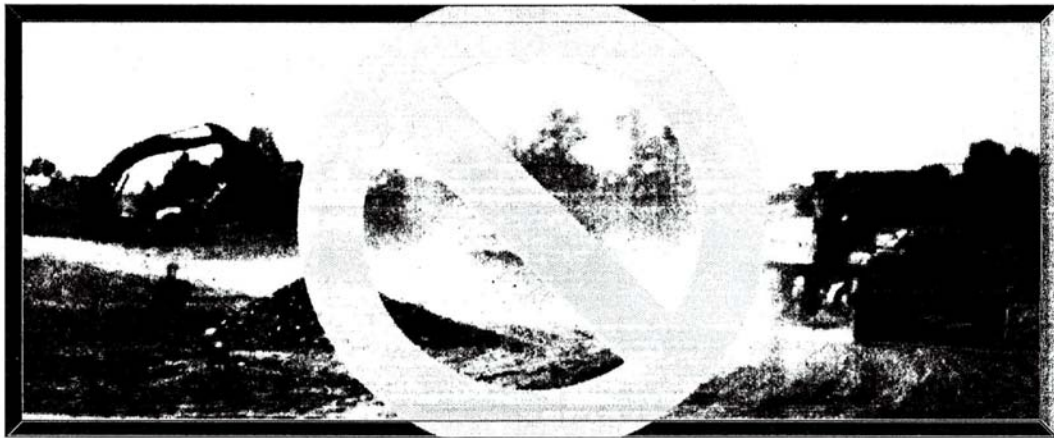
Fugitive Dust Control During the 2001 Summer Construction Season



FACT SHEET

Working Together for Clean Air

Fugitive Dust Control During the 2001 Summer Construction Season



“We challenge contractors to employ creative ways to minimize dust...”

We know that fugitive dust arising from the disturbance or movement of soil is a significant source of air pollution, particularly during the dry summer months. We also know that the availability of water is one of several key dust control measures. What we don't know, is the impact of the statewide drought conditions recently recognized by Governor Locke.

In the event of a water shortage, we expect contractors to continue using best management practices, many of which require little or no water. These include limiting vehicle speed, use of gravel and chemical dust suppressants, quarry spalls, and wheel wash facilities. We challenge contractors to employ creative ways to minimize dust emissions.

We also realize that there may be situations where water is the only practical solution for preventing dust emissions. In such instances, and where only limited water is available, priority considerations should be given to controlling dust for safety (ex, driver visibility) and health reasons.

A brochure (enclosed) published by the AGC of Washington Education Foundation – “Guide To Handling Fugitive Dust From Construction Projects”—discusses best management practices for controlling fugitive dust. We urge you to examine that brochure and determine which management practice(s) work best for keeping the dust down AND conserving water. Choosing the right approach means we can all breathe a little easier this summer.

www.pscleanair.org • 110 Union Street, Suite 500 Seattle, Washington 98101 • 206.343.8800 • 800.552.3565 • FAX 206.343.7522

May 2001